

PCML
TELEDRIE

USER MANUAL



TELEDRIE USER MANUAL (Release 1.1)

ABOUT THIS MANUAL

WHAT'S IT FOR? This manual is about the TELEDRIE, which is a disk drive option for the ICL OPD and Merlin TONTO. The manual is divided into five sections to help you find your way around. The sections are introduced here in a comprehensive index to help you locate information quickly.

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Gives a list of technical information about your TELEDRIE.

I. BEFORE YOU START

PROPER USE OF THE TELEDRIIVE

The TELEDRIIVE has been designed, manufactured and tested to meet international standards for data processing equipment. As with any electrical apparatus, however, you must be careful when using it.

- | | | | |
|-----------|---|--------------|---|
| DO | Read the operating instructions carefully before you try to use the TELEDRIIVE. | DON'T | Continue to use the TELEDRIIVE if you have any doubt about it working normally or if it is damaged in any way. Disconnect it from the computer. Consult your supplier. |
| DO | Ensure that all electrical connections (including mains plug and interface lead) are properly made in accordance with the instructions. | DON'T | Trail wires across gangways or under carpets. |
| DO | Keep your fingers and other objects away from connectors, apertures and other moving parts of the TELEDRIIVE. | DON'T | Obstruct the disc slots in the TELEDRIIVE, this could cause damage. |
| DO | Disconnect the TELEDRIIVE from the mains before carrying out any maintenance procedures. | DON'T | Remove any fixed covers unless you are qualified to do so and even then disconnect the TELEDRIIVE from the mains and the computer before you start. (Unqualified persons may invalidate the user's guarantee) |
| DO | Periodically check that leads have not become damaged or worn. | DON'T | Position the TELEDRIIVE near heat sources such as radiators. High temperatures may cause overheating of the unit and shorten its life. |
| DO | Remove micro-diskette before removing power from TELEDRIIVE. | | |

WHAT YOU NEED To install the TELEDRIVE you require:

- An operational host computer (ICL OPD or Merlin TONTO).
- A screwdriver, with a blade about 5mm wide.
- A standard 3-pin mains plug fitted with a 3amp fuse.
- A mains supply outlet (240v 50Hz) already installed for use with a standard UK 3-pin plug.
- The items listed in II.A overleaf which are delivered with the TELEDRIVE unit.

The 3-pin plug should be connected as follows:

Green/Yellow	to Earth	E
Brown or Red	to Live	L
Blue or Black	to Neutral	N

The mains outlet should be within easy reach of the power lead supplied otherwise you may require an extension lead. It is recommended that the mains outlet should be of the switched type and should preferably be in the same socket as the host computer, so less likely to be switched off by mistake.

WARNING

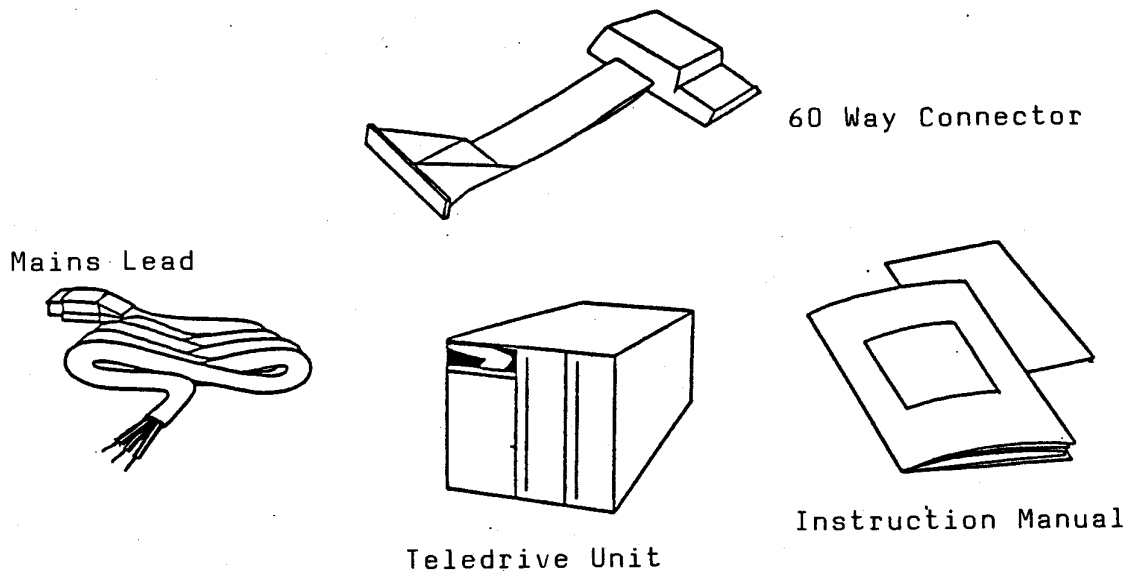
The safety of this equipment relies on it not being connected to an impedant neutral (IT) power distribution system (as defined in BS6204). This type of power supply is found only outside the UK (notably in parts of FRANCE), where you should check the type of supply with your local authority. If your supply is of the IT type, you must fit an isolation transformer between the supply outlet and the mains lead of the TELEDRIVE. If in doubt, consult a qualified electrician.

II. GETTING STARTED

A. Unpack and Check

CAUTION: HANDLING EQUIPMENT

After unpacking the TELEDRIVE, check that you have the following items:



Contact your supplier immediately if anything is missing or is obviously damaged.

Keep the packing materials in case you need to return the TELEDRIVE for service or repair.

Now fill in and return the guarantee card.

B. Positioning of the unit

The TELEDRIVE has been designed to integrate fully with the ICL OPD/Merlin Tonto range, it can be placed as a stand alone unit to the right of the computer, or when operated with other approved interfaces, stacked with them.

C. Data Save

Before switching off your host computer you may like to save any data still stored in the machine, either by using the SAVE STORE command, or by other means.

CAUTION: Do not eject while the operating light at bottom of drive is illuminated.

!!! Always remove diskettes before powering down the TELEDRIVE unit.

E. DATA RESTORE

Any data saved before power down of your host computer can be loaded from microdrive in the normal way.

III OPERATING YOUR TELEDRIIVE

A. REDIRECTION OF L AND R (Normally Left and Right microdrive)

In order to use the TELEDRIIVE it is necessary to redirect L and R to disk drives, or RAMDISK. This is necessary because the base software of the computer will only accept L & R as drive specifiers. It is therefore, only possible to use two devices at any time. Devices can be used in any combination.

Eg. One microdrive and one floppy disk.

Two floppy disks

One floppy disk and RAMDISK

etc.

L & R can be redirected to A B C D or E.

A + B represent the two drives of your TELEDRIIVE. The left hand drive being A and the right hand drive being B.

C + D represent any other drives connector to your TELEDRIIVE.

E represents the RAMDISK, which is created from 180K of the 256K in the TELEDRIIVE and is used in exactly the same manner as the floppy disk drives. It is automatically formatted when powering up the TELEDRIIVE.

Redirectiing L to drive A

FROM TOP LEVEL MENU

Go into	Applications Menu
Select	Disk Utilities Menu
Select	L & R Redirection
Type A	To change drive L from Microdrive to Left hand Disk drive. .
Press f1	To accept drive redirection. Automatically returns to Disk Utilities Menu.

B. NOW FORMAT A DISK

	With L redirected to drive A
Insert	Disk to be formatted in left drive
Select	Format Disk from Disk Utilites Menu
Enter	Disk name .eg TEST
Type L (or A)	To format left hand disk drive.
Press f1	To accept format operation. Format proceeds (Taking approx. 1 minute).
Type N	No further disks to format
Press START	Returns you to Top Level Menu

FROM THIS POINT ON THE FLOPPY DISKS AND RAMDISK ARE USED AS IF THEY WERE MICRODRIVES. ALL THE FOLLOWING OPERATIONS USE THE MICRODRIVE UTILITIES AND ALL DEVICES MUST BE REFERRED TO AS EITHER L OR R.

C. COPYING CARTRIDGES AND DISKS

The copy procedure is the same for microdrives, floppy disks and RAMDISK, using the Copy Cartridge option on the Microdrive Utilities Menu.

1. COPY FROM MICRODRIVE TO FLOPPY DISK

To copy a Microdrive to a floppy disk, place microdrive cartridge to be copied in right microdrive (L should be redirected to Drive A).

FROM TOP LEVEL MENU

Go into	Housekeeping Menu
Select	Microdrive Utilities
Select	Copy Cartridge screen
Type R	R defined as the source drive
	It is not necessary to
	name the cartridges
Press f1	Copy procedure begins.

The computer copies files individually, asking whether each file should be copied. Either type Y or N (Yes or No) to enable the computer to copy specified files, or press f1 for ALL files to be copied.

When copying is finished there is the opportunity to have a Copy Report.

Press Y	Copy Report displayed
Y or N	Y to copy further cartridges or diskettes.
	N to return to Microdrive Utilities Menu.

2. COPY FROM FLOPPY DISK TO FLOPPY DISK

In order to copy from floppy disk to floppy disk it is necessary to redirect both L & R to the left and right disk drives (A and B).

FROM TOP LEVEL MENU

Go into	Applications Menu
Select	Disk Utilities
Select	L & R Redirection
Type A	Redirects 'L' to drive A
Type B	Redirects 'R' to drive B
Press f1	Saves redirection and returns to Disk Utilities Menu

Insert source diskette in left hand drive A
Place target diskette in Right hand drive B

Press START Displays Top Level Menu
Go into Housekeeping Menu
Select Microdrive Utilities
Select Copy Cartridge
Type L or R Specifies your source drive

It is not necessary to name the cartridges.

Press f1 Copy procedure begins
Press f1 ALL files will be copied
Type Y For Copy Report
Y or N Y to copy further cartridges or diskettes
 N to return to Microdrive Utilities Menu

3. COPY FROM FLOPPY DISK TO RAMDISK.

In order to copy from floppy disk to RAMDISK it is necessary to redirect L or R to RAMDISK (E).

FROM TOP LEVEL MENU

Go into Applications Menu
Select Disk Utilities
Select L & R Redirection
Type A Redirects 'L' to drive A
Type E Redirects 'R' to drive E
Press f1 Saves redirection and returns to Disk
 Utilities Menu

Insert source diskette in left hand drive (A)

Press START Displays Top Level Menu
Go into Housekeeping Menu
Select Microdrive Utilities
Select Copy Cartridge
Type L Specifying L (drive A) as source drive

It is not necessary to name the cartridges.

Press f1 Copy procedure begins
Press f1 ALL files will be copied
Type Y For Copy Report
Y or N Y to copy further cartridges or diskettes
N to return to Disk Utilities Menu

4. OTHER COMBINATIONS OF COPYING

By redirecting L and R to various devices any combination of copy can be done.

Floppy disk to Microdrive
Microdrive to RAMDISK
RAMDISK to Microdrive
RAMDISK to floppy disk
Microdrive to Microdrive

It is important to remember that when copying from floppy disk or RAMDISK it is possible for the device being copied from to hold more data than the device being copied to. If this is so the copy will proceed, however, copy errors will be shown in the Copy Report.

NB. All the aforementioned copy routines were operated via the Microdrive utilities. All of these utilities can be used with your TELEDRIE except for the Format Cartridge option.

D. MICRODRIVE UTILITIES

1. DISPLAY CARTRIDGE DETAILS

FROM MICRODRIVE UTILITIES MENU

Select	Cartridge Report
Press ENTER	Bypasses cartridge name
Type R	R indicates drive
Press f1	Name of cartridge, state, expected life and Report Option given.
Type Y	The file list display shows the files on cartridge/disk.

2. COPY FILE

FROM MICRODRIVE UTILITIES MENU

Select	Copy File
Enter	Source filename and drive (L or R)
Enter	Destination filename and drive (L or R)
Press f1	Copy proceeds if file found
Y or N	Y for further copies
	N return to Microdrive Utilities Menu

3. CREATE A FILE

This routine allows you to create a file which you can write to at a later date.

FROM MICRODRIVE UTILITIES MENU

Select	Create File
	Enter name of file to create
Type L or R	Specify drive to create file on

A message appears showing the number of empty blocks of store on the disk (owing to the limitations in the base software of the host computer this value will stay at '200', although the amount of free space is considerably more than this). Respond to the prompt.

Press f1	After a short delay the File created message will be displayed
Y or N	Y for further copies N to return to Microdrive Utilities Menu

4. DELETE FILE

To delete a file from a microdrive, floppy disk or RAMDISK, use the Delete File option from the Microdrive Utilities Menu.

FROM MICRODRIVE UTILITIES MENU

Select	Delete File
	Enter name of file to delete
	Specify cartridge name (or press ENTER)
Type L or R	Specifying drive to delete file from
Press f1	Displays confirm deletion required (if found)
Type Y	File deleted message displayed

4. RENAME A FILE

Files can be renamed using the Rename File option in the Microdrive Utilities Menu.

FROM MICRODRIVE UTILITIES MENU

Select	Rename File
	Enter name of file to rename
	Specify cartridge name (or press ENTER)
Type L or R	Specifying drive to rename file on
Press f1	File renamed message displayed (if found)
Y or N	Y for further files to be renamed
	N to return to Microdrive Utilities Menu

E. RAMDISK

The TELEDRIIVE is provided with 256K of memory, part of which is used to support the disk drives; the remainder of approx 180K can be used as a RAMDISK. This allows save and load operations at machine memory speed, which is twice as fast as floppy disk drives and considerably faster than microdrives. It is important to remember that the RAMDISK must be saved frequently to microdrive or diskette; as with the store in your host computer all data will be lost when the unit is switched off.

The RAMDISK is formatted automatically on power up of the TELEDRIIVE and host computer.

To use the RAMDISK simply redirect L or R to drive E. After redirection the RAMDISK is used in exactly the same manner as microdrive.

To clear the RAMDISK without switching off the system, it is necessary to enter the Disk Utilities Menu and then to reformat the RAMDISK using the Format Disk option.

To FORMAT RAMDISK

FROM TOP LEVEL MENU

Go into	Applications Menu
Select	Disk Utilities
Select	Format Disk
	Enter the required disk name
Type E	Specifies drive to format
Press f1	Formats RAMDISK
Y or N	Y for further disk to format
	N to return to Disk Utilities Menu

F. CONFIGURATION OF TOP LEVEL MENU

When the TELEDRIIVE is first set up, the Disk Utilities Menu is only available via the Applications Menu. In order to make the Disk Utilities option 9 of the Top Level Menu the following procedure must be followed.

Use the Disk Utilities to redirect R back to right Microdrive (R)

FROM TOP LEVEL MENU

Insert your	BASIC cartridge into right Microdrive
Go into	Applications Menu
Select	Display Cartridge Menu (option 1)
Select	"CONFIG"

System loads BASIC followed by CONFIG.

Accessing permanent store and displays MAIN SYSTEM CONFIGURATION.
Use down cursor key to position to 'Application for Top Level Menu entry'.

Press f1	Clears any previous box entry
Type	<u>Disk Utilities</u> in box
Press ENTER	Disk Utilities now set as option 9
Press f8	Top Level Menu appears with 'Disk Utilities' as option 9 (and is no longer in Applications Menu).

IV MAINTENANCE AND TROUBLESHOOTING

The TELEDRIE needs very little maintenance. If any thing does go wrong, the troubleshooting information in this section should guide you through most problems.

Maintenance

Cleaning:

Clean the TELEDRIE casing whenever it seems necessary due to accumulation of dirt and dust. Use a clean, damp, lint free cloth and a little water based household cleaner. Take care not to spill water onto or inside the TELEDRIE.

!!!

DO NOT use acetone or other solvents as these may damage the finish and diskette covers.

Troubleshooting

TELEDRIE not
working and
drive indicator
does not
illuminate.

If after power on the drive indicator light fails to illuminate, switch off and check 13amp fuse in plug and 500ma fuse in power socket.

TELEDRIE
Disk utilities
menu not
available

If on initial connection the 'Teledrive installed' message does not appear, and the Disk Utilities Menu is not available in the Applications Menu, the computer may be fitted with an old ROMPACK. Consult your supplier.

If you have any problems not covered by this manual contact your supplier.

V TECHNICAL SPECIFICATION

Physical

Size: 270mm (length) x 110mm (width) x 105mm (height)
 10.6" (length) x 4.3" (width) x 4.1" (height)

Weight: 3.05kg

Power Requirements: 220/240 volts, 50 HZ Europe.
 110/115 volts, 60 HZ USA.

Operating Environment

Temperature: 5 - 25 C

Humidity: 20 - 85% RH

Controls

Power: Unit powered up on installation of Euro Connector

Lights: Drive select indicators

Drives: Diskette eject button

Drives

Type: 3.5" Double Sided

Power: + 12V ... (1.6W), + 5V ... (0.9W)

Rotational Speed: 300 RPM

Access Time, Track to Track: 3ms

Settling Time: 15ms

Track Density: 135tpi

MTBF: 12,000 (Powered on hours)

Capacity: 720 Kb formatted

Tracks: 160

Base Unit

Controller: Hitachi HD64180 microprocessor
 controlled drive interface with on-board
 DMA channels.

RAM: 256Kb on board

Diskette

Type: 3.5" double sided medium

Size: 3.5" (90 x 94mm)

Recording Surfaces: 2

IMPORTANT NOTICE

These disk drives are of the highest quality and should therefore, only be used with high quality floppy disks to avoid premature wearing of the drive mechanism and magnetic reader head. PCML Ltd can accept no responsibility for any problems which may occur if low quality media is used.

Tests have shown the following brands are suitable, however other brands may be of similar quality.

JVC
Sony
Maxell
Fuji
RPS

Floppy diskettes which conform to the standards required by these drives can be obtained from PCML Ltd. Please telephone us for details.

Serial No: 11334

PCML TELEDRIE TEST PROCEDURE

To perform this series of tests you need two preprepared disks called "1" and "2", disk "1" should be write-protected.

- 1) Format disk "2" in left drive calling it "2"
- check that step rate is roughly one-per-second
by putting hand on top of drives.

Disk should format correctly (tick) ☒

- 2) Look at directory of disk in left drive by
using the "microdrive utilities"

Check disk only contains !CAT files ☒

- 3) Put disk "1" in right drive and copy all the
files to disk "2". 10 files should copy correctly
and there should be no copy errors.

No copy errors (tick) ☒

- 4) Try and delete the file called "delete me" on
the right drive. An error should be reported.

Error was reported ☒

- 5) Delete file called "delete me" on the left drive
and look at the directory to see if file has gone.

File has deleted ☒

- 6) Take out disk "1" and try to load BASIC from the
top level menu when BASIC has loaded type "bye"
to return to the top level menu.

BASIC loaded OK ☒

- 7) Put disk "2" into right drive and format it
calling it "two".

Formatted OK ☒

- 8) Look at the directory using "microdrive utilities"
and check that only the !CAT1 and !CAT2 files are
present.

CAT files present ☒

If all the boxes are ticked then the unit has passed this
test. The total test time should be less than six minutes.

IMPORTANT NOTICE

Before following the TELEDRIE installation procedure please remove and check the serial number on your ROMPACK (This applies to two-slot ROMPACKs only).

The number on your ROMPACK should look something like this: F2443/04 035/xxxxxxx. The first set of digits represents the model number of your ROMPACK. All ROMPACKS should start with F2443, followed by two digits which will change. Where these last two digits are 02; 04; 05; only certain serial numbers will work. The serial number starts with a three digit number, which is then followed by a six digit number.

If you have one of the above mentioned model numbers only the serial numbers given below, or any number above that will work with the Teledrive.

F2443/02 - 045/008251

F2443/04 - 035/002551

F2443/05 - 035/001001

ADDENDUM

Using 'Cartridge Menu' option to look at right drive

NB. This only applies when L is redirected to a floppy disk drive and contains no disk.

Either: Press '1' (for Cartridge menu) twice, very quickly, preventing it looking at left drive or press '1' then wait for 'Read Fail' message to appear for left drive, then press '1' again.

If '1' is pressed for a second time, while it is still checking left drive, it will be necessary to go to top level menu and repeat, following the procedure above.

DISCOUNT

PCML

LIMITED

Dear John,
Many thanks for taking the time to call us. I enclose a brief description of "Teledrive" as promised. The product is very aggressively priced at £495 and I am sure you will find it an extremely powerful addition to your Tonto. I look forward to hearing from you when you have digested the enclosed.
Richard

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LIMITED

Here is your eprom to upgrade the teledrive to the latest version. Please could you return the old version eprom.
With Compliments

Royal Mills
Esher
Surrey
KT10 8AS

David Bully

Telephone (0372) 69922/67282 Fax (0372) 68162 Telex 935398